

Nico D'Cotta

Platform Software Engineer

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EXPERIENCE

- 06/2020 – today **Platform engineer** **Blockchain.com**
intern,
then part time,
then full time,
then part time
Performing production incident response - with **PagerDuty**
Shipping under time constraints on several large **JVM** codebases that power the cryptocurrency exchange and wallet
Scaling up distributed systems with a microservices event-driven architecture
Engineering tooling, like **Gradle** plugins, in order to facilitate development and allow for faster iterations
- 06/2020 – 10/2020 **Software Engineer Intern** **Emit, Inc.**
Four-person startup where I worked closely with co-founders to pivot into time data analytics.
Developed a data processing pipeline and libraries in **Kotlin** and **Python** on top of serverless tech on **AWS (Lambda, DynamoDB, ElasticSearch)**

EDUCATION

- 2018 – 06/2022 **MEng Computer Science – currently First Class Honours** **Imperial College London**
Focus on Software Engineering, Distributed Systems, Network and Computer Security, Systems and Data Scalability, Logic-based AI, Type Systems for Programming Languages, Simulation & Modelling.
Additional Business School modules: Finance & Financial Markets, Business Strategy, Project Management.
- 2015-2018 **French Baccalaureate (S-SI) – Highest Honours** **French Lycée of Madrid**
High-school diploma with **Engineering Sciences with Further Maths** specialisations, and completed optional Portuguese and Music modules.
Extracurriculars include two Model UNs, Drama, Choir, student representative, competing in the basketball team.

PROJECTS

see my full portfolio at nico.dcotta.eu

- AWS (Lambda, DynamoDB, EC2), Kotlin, VueJS, TS** **DJStreamr, collaborative streaming service for DJs** djstreamr.com
Music synchronisation protocol implemented as a webapp with an event-driven platform architecture which leverages serverless technology.
- Kotlin, JVM bytecode, ARM11 assembly** **WACC, multiplatform compiler** cottand/WACC
Multiplatform compiler from WACC (a toy language) to JVM bytecode and ARM11 64-byte assembly that supports basic constructs like stack allocated primitives, and heap-allocated arrays and pairs.
- C, x86 assembly** **Pintos, UNIX-like OS** pintos-os.org
Pint-sized OS with features such as advanced scheduling, paging, virtual memory and user programs with support for some of the C stdlib.
- Unity, C#** **ICHack'19 (Hackathon) – Best Mobile App Award** cottand/ICHack2019
AR-powered teaching app in that brings interactive 3D models to students' phones.
- Typescript, VueJS, Python** **IVANN, neural-network building GUI** [IVANN website](https://ivann.website)
Interactive code generator (for Python Tensorflow) to empower research by abstracting away from code, written in Typescript with VueJS
- Elixir, Paxos** **Multi-Paxos** cottand/multi-paxos
Implementation of a variation of the Paxos consensus algorithm, as specified in the paper Paxos Made Moderately Complex

TECHNOLOGIES

Proficient in JVM (Kotlin, Java), Gradle
Experience with AWS (Lambda, DynamoDB EC2, S3, CodeDeploy, API Gateway), Nomad
Python, C, Haskell, Typescript, Elixir
gRPC + protobufs, Kafka, Akka, PostgreSQL, Docker, APM, ConcourseCI, TravisCI, GitlabCI, React, VueJS

LANGUAGES

English - proficient (C2 certification)
Spanish - native
French - proficient
Portuguese - rudimentary

HOBBIES

I enjoy DJing as well as kitesurfing and rock climbing!